Resources for Planning

Region wide planning/ screening examples

Portland, OR
The Regional Transportation plan established a set of regional policies which included Transportation Demand Management Policies under goal 19. Under goal 19.2, Peak Period Pricing, the goal is to manage and optimize highway use in the region to reduce congestion. http://www.metro-region.org/library_docs/trans/2002_chapter_1.pdf

Minneapolis, MN
Since 1994, the Minnesota Department of Transportation (Mn/DOT) and the Twin Cities Metropolitan Council have worked in collaboration with the State and Local Policy Program of the University of Minnesota's Hubert H. Humphrey Institute of Public Affairs to explore value pricing as a transportation solution in the Twin Cities.
http://www.oim.dot.state.mn.us/StatePlan/index.html
http://www.metrocouncil.org/planning/transportation/TPP/tppindex.htm
http://www.metrocouncil.org/planning/transportation/TPP/TPPChapter4.pdf

Dallas, TX
Mobility 2025-2004 update will include a section on managed lanes that considers tolling eligible HOV lanes.
http://www.dfwinfo.com/trans/mtp/current/mob2025update_SummaryPresentation.pdf

Seattle, WA
The Destination 2030 Plan established a Blue Ribbon Transportation Commission that recommended balancing transportation supply and demand through pricing.
http://www.psrc.org/projects/mtp/chapter6.pdf

Project planning examples

I-15 HOT lanes extension, San Diego
The I-15 HOT lanes (described in the previous section on “Converting HOV Lanes to HOT Lanes”) may be extended to create a 20-mile "Managed Lanes" facility in the median of Interstate 15 between State Route 163 and State Route 78. When completed, there will be a four-lane facility in the median with a moveable barrier, multiple access points from the regular highway lanes, and direct access ramps for buses from five transit centers. A high frequency Bus Rapid Transit (BRT) system also will be operated in these managed lanes. http://argo.sandag.org/fastrak/

Route 1 HOT lanes, Santa Cruz
A five-mile section of State Route 1 is proposed for widening. The results of the study indicated that HOT lanes in the study corridor would be subject to a number of design and operation constraints, due to the short study corridor, multiple interchanges on the adjacent main lanes, and anticipated high levels of HOV traffic. In June 2002, the Regional Transportation Commission voted not to include a HOT lane alternative in

further consideration, however it did select a carpool lane alternative with a footprint that would allow conversion to a HOT lane at a future date, should demand warrant it. The attached document provides the final report for the study. Highway 1 Widening for Carpool Toll Lanes - Santa Cruz to Aptos (HOT Lanes) Website: http://www.sccrtc.org/highway.html#hot

I-880 HOT lanes, Alameda County, CA

Interstate 880 is a major congested freeway in Alameda County. It has one high-occupancy vehicle (HOV) lane plus three contiguous mixed flow lanes in each direction for approximately 17 miles, from just south of Oakland to Fremont. This corridor has the highest volume of truck traffic in the region. It connects the Port of Oakland and Oakland International Airport with high technology companies in Santa Clara and southern Alameda counties and with goods distribution centers to the east. Study results indicated that, while excess capacity exists, it is not sufficiently high to make local officials comfortable that additional priced vehicles could be accommodated. http://www.hhh.umn.edu/centers/slp/projects/conpric/index.htm

I-680 HOT lanes, Alameda County, CA

The Alameda County Congestion Management Agency is investigating design concepts and feasibility of new High Occupancy Toll (HOT) lanes on a 14-mile portion of I-680 connecting residential areas in the north and east to the job centers of Silicon Valley in the south. The study is reviewing various design concepts for HOT lanes. To access these documents, go to the Community of Practice web site listed below and then click on References.
http://knowledge.fhwa.dot.gov/cops/kx.nsf/home

I-25 HOT lanes, Denver, CO

A regional study of the feasibility of HOT lanes in Denver concluded that the I-25/US 36 corridor was the most feasible location for a pilot demonstration of HOT lanes. The I-25 Bus/HOV lanes, also known as Downtown Express lanes, consist of a two-lane barrier-separated reversible facility in the median of I-25 between downtown Denver and 70th Avenue, a distance of 6.6 miles. The project will convert the Downtown Express lanes into a HOT lane facility, serving additional trips and optimizing the use of the facility. Dynamic pricing of single-occupant vehicles (SOVs) is planned. Colorado Value Lanes Study www.valuelanes.com

Route 167, Seattle, WA

In January 2003, the Washington State Transportation Commission adopted a resolution directing WSDOT to evaluate the feasibility and potential benefit of converting one or more HOV (High Occupancy Vehicle) lanes to a High Occupancy Toll (HOT) lane. SR 167 was selected for several key reasons: it is congested during peak periods, it has available space in the HOV lane, and the roadway can accommodate the HOT lane design. http://67.50.150.182/HOTlanes/HOTlanes_Report_11_6_03.doc

Public Involvement in the Planning Process

Twin Cities, MN
Since 1994, the Minnesota Department of Transportation (Mn/DOT) and the Twin Cities Metropolitan Council have worked in collaboration with the State and Local Policy Program of the University of Minnesota's Hubert H. Humphrey Institute of Public Affairs to explore value pricing as a transportation solution in the Twin Cities.
The Listening to the Public report is available at -
http://knowledge.fhwa.dot.gov/cops/hcx.nsf/home

MN - Task Force Report - CURBING CONGESTION: Improving traffic flow, transit, and transportation funding through value pricing (PDF)
http://www.hhh.umn.edu/centers/slp/projects/conpric/projects/mnreport.pdf

Lee County, FL
Of primary significance to the success of the program was public awareness. Prior to and throughout the program, a considerable amount of effort went into informing the public.
The complete study report with conclusions and recommendations is available at
http://www.hhh.umn.edu/centers/slp/projects/conpric/projects/project.pdf

Portland, OR
The Portland study is a model of good practice because it afforded ample opportunity for public participation in developing and evaluating pricing options. The key element of the committee structure was a Citizen's Task Force, which provided overall direction to the study. The 15-member Citizen's Task Force was both geographically and demographically diverse, allowing the study to incorporate the views of all segments of the community. The complete study report with conclusions and recommendations is available at: www.metro.dst.or.us/metro/transpo/tros/tros.htm

Texas
Marketing the Managed Lanes Concept is a report that describes the managed lane concept that is currently being considered on major freeway projects in Texas cities. While the high-occupancy vehicle (HOV) concept is familiar in most urban areas, motorists are less familiar with managed lanes. The projects reviewed in this report focus attention on the newer concept of pricing separate travel lanes, including HOT lanes and toll lanes, since previous research has addressed marketing and gaining public support for HOV lanes, SOV lanes, and truck lanes. The goal in reviewing these kinds of projects is to gain an understanding of public perception and public interaction when a new and complex concept for managing travel demand is introduced.
The Full Text URL: http://managed-lanes.tamu.edu/products/reports/4160-7.pdf

Texas

Managed Lanes: A New Concept for Freeway Travel is a user-friendly brochure that is a position statement on managed lanes suitable for use by the media in conveying the concept of managed lanes to the public. The paper provides the media with a statewide perspective on managed lanes. The paper identifies the benefits of managed lanes, how the lanes may be operated, where successful projects have been implemented, and what TxDOT has planned for Texas.
The Full Text URL: http://managed-lanes.tamu.edu/products/brochures/4160-6-P2-Media_Brochure.pdf

Planning Analysis Tools

Sketch Planning Analysis
SMITE-ML This Excel spreadsheet model applies the principles of pivot point mode choice analysis and economic analysis to evaluate highway capacity expansion with managed lanes in an urban setting, taking into account new travel that may be induced by highway expansion over and above that which is simply diverted from other regional highways. This model is useful for quick-response sketch planning analysis. The SMITE-ML spreadsheet can be used to provide useful information to assist policy makers in evaluating proposals for specific additions to highway capacity involving either general purpose or managed lanes. http://www.fhwa.dot.gov/steam/smiteml.htm

Four-step Modeling
STEAM Surface Transportation Efficiency Analysis Model
The Intermodal Surface Transportation Efficiency Act (ISTEA) emphasizes assessment of multimodal alternatives and demand management strategies. This emphasis has increased the need for planners to provide useful comparative information to decision makers with regard to proposed alternative transportation solutions. Benefit-cost analysis is a useful tool to compare the economic worth of alternatives and evaluate trade-offs between economic benefits and non-monetizable social and environmental impacts.

TRANSIMS – The TRansportation ANalysis SIMulation System is a set of new transportation and air quality analysis and forecasting procedures developed to meet the Clean Air Act, the Intermodal Surface Transportation Efficiency Act, Transportation Equity Act for the 21st Century, and other regulations. It consists of mutually supporting simulations, models, and databases that employ advanced computational and analytical techniques to create an integrated regional transportation system analysis environment. http://TRANSIMS.tsasa.lanl.gov

Estimating toll revenues
Sketch Planning for Road Use Charge Evaluation (SPRUCE) Model: Excel Spreadsheet - This model is designed to evaluate the strengths and weaknesses of alternative strategies in metropolitan areas to manage operations on freeway networks in combination with new transit service and inducements for HOV use. The attached zip file contains two Excel files that apply the model to typical scenarios. To follow the analysis demonstrated in the model, please refer to documentation in the accompanying paper "An Evaluation of 'High Occupancy Toll' and 'Fast And Intertwined Regular' Networks," also available in

the "Works in Progress" section of this web site. Each of the spreadsheets demonstrates one alternative. To access these documents, go to the Community of Practice web site listed below and then click References.
http://knowledge.fhwa.dot.gov/cops/hcx.nsf/home

Technical Assistance

Peer-to-peer program - The Peer to Peer Program delivers short term assistance according to your ITS needs. Assistance may include telephone consultations, off-site document reviews, presentations, visits to your site or appropriate actions. Program recipients are public sector entities, including: State DOTs, Transit agencies, State motor carrier & related agencies, Turnpike & tollway authorities, and Cities, counties & MPOs. Access the program by calling (1-888-700-PEER) or sending electronic mail (P2P@fhwa.dot.gov), or working through your FHWA, FTA or FMCSA contacts. A telephone call will get us started working for you.

List of Project Managers for Pilot Projects

1. CALIFORNIA: HOT Lanes on I-15 in San Diego/I-15 Extension - Derek Toups, San Diego Association of Governments; Phone (619) 595-5307, e-mail dto@sandag.org
2. CALIFORNIA: HOT Lanes on I- 880 in Alameda County - Jean Hart, Deputy Director, Alameda County Congestion Management Agency; telephone (510) 836-2560, fax (510) 836-2185, email jhart@accma.ca.gov
3. COLORADO: HOT Lanes on I-25/US 36 in Denver- Myron Swisher, Colorado Department of Transportation, 2000 S. Holly St., Denver, CO 80222; phone 303-984-5272; e-mail myron.swisher@dot.state.co.us
4. FLORIDA: HOT Lanes on I-95 in Miami-Dade County - Kenneth Jeffries, Office of Planning FDOT, District 6, 305.377.5683 (phone) 305.377.5684 (fax) email: ken.jeffries@dot.state.fl.us
5. TEXAS: HOT Lanes on Two Radial Corridors in Houston (I-10 and US 290) - David Fink, Transportation Operations Engineer, Texas Department of Transportation; Phone (713) 881-3063, dfink1@houstontranstar.org
6. FLORIDA: Cordon Pricing in Lee County - Chris Swenson, P.E., CRSPE, Inc.; Phone 239-573-7960, crs@crspe.com; or Margie Byers, CRSPE, Inc. Phone 239-573-7960, mwb@crspe.com
7. CALIFORNIA: FAIR Lanes with Dynamic Ridesharing in Alameda County - Jean Hart, Deputy Director, Alameda County CMA; telephone (510) 836-2560 ext. 11, fax (510) 836-2185, email jhart@accma.ca.gov
8. CALIFORNIA: Express Lanes on State Route 91 in Orange County - Ellen Burton, OCTA, General Manager, 91 Express Lanes; (714) 560-6282; eburton@octa.net
9. CALIFORNIA: HOT Lanes on I-680 in Alameda County - Jean Hart, Deputy Director, Alameda County Congestion Management Agency; telephone (510) 836-2560, fax (510) 836-2185, email jhart@accma.ca.gov

10. CALIFORNIA: HOT Lanes in Median of State Route 1 in Santa Cruz County - Karena Pushnik, Santa Cruz County Regional Transportation Commission; tel: 831/460-3210; karena.pushnik@co.santa-cruz.ca.us.
11. COLORADO: HOT Lane on C-470 in Denver - Ron Buck, Colorado Department of Transportation; Phone 303-972-9112, ron.buck@dot.state.co.us.
12. FLORIDA: Priced Queue Jumps in Lee County - Chris Swenson, P.E., CRSPE, Inc.; Phone 239-573-7960, crs@crspe.com.com; or Kris Cella, Cella & Associates, Inc.; Phone 239-337-1071, kcella@cella.cc
13. NORTH CAROLINA: HOT Lanes on I-40 in Raleigh/Piedmont - Mrinmay Biswas, NCDOT; tel: 919/715-2465, e-mail: biswas@dot.state.nc.us.
14. OREGON: HOT Lanes on Highway 217 in Portland - Ms. Bridget Wieghart, Metro Project Manager Phone 503-797-1775; wieghartb@metro.dst.or.us.
15. TEXAS: Managed Lanes on the LBJ Freeway in Dallas - Matthew MacGregor, P.E. LBJ Project Office; Phone 214/319-6570, mmacgre@dot.state.tx.us
16. TEXAS: Managed Lanes on the Katy Freeway in Houston - David Fink, Texas Department of Transportation; Phone (713) 881-3063, dfink1@houstontranstar.org.
17. TEXAS: Pricing on I-35 in San Antonio - Judy Friesenhan, Planning Engineer, Texas Department of Transportation; 210/615-5814; e-mail: jfriese@dot.state.tx.us
18. CALIFORNIA: Peak Pricing on the San Joaquin Hills Toll Road in Orange County - Terry Swindle, San Joaquin Hills Transportation Corridor Agency; phone: 949-754-3487, swindle@sjhtca.com.
19. FLORIDA: Bridge Pricing in Lee County - Kris Cella, Cella & Associates, Inc.; Phone 239-337-1071; e-mail kcella@cella.cc or Chris Swenson, P.E., CRSPE, Inc.; Phone 239-573-7960; e-mail crs@crspe.com.com.
20. FLORIDA: Variable Tolls along the Sawgrass Expressway in Broward County - Randy Fox, AICP – Turnpike Planning Manager, Phone (407) 532-3999, E-mail: Randy.Fox@dot.state.fl.us or Gary Phillips, AICP – Project Manager, URS Corporation, Phone (850) 574-3197, E-mail: Gary_Phillips@urscorp.com.
21. FLORIDA: Variable Tolls for Heavy Vehicles in Lee County - Kris Cella, Cella & Associates, Inc.; Phone 239-337-1071; e-mail kcella@cella.cc or Chris Swenson, P.E., CRSPE, Inc.; Phone 239-573-7960; e-mail crs@crspe.com.com.
22. FLORIDA: Pricing Options on the Florida Turnpike in Miami-Dade County - Gary Phillips, URS Corporation; Phone (850) 574-3197, e-mail Gary_Phillips@urscorp.com.
23. ILLINOIS: Variable Pricing on the Northwest Tollway/I-90 in Chicago - Eugene Ryan, Wilbur Smith Associates, phone: (630) 434-8111 eryan@wilbursmith.com; or Dean Mentjes, Mobility Engineer, phone: (217) 492-4631 dean.mentjes@fhwa.dot.gov.
24. NEW JERSEY: Variable Tolls on the New Jersey Turnpike - Kaan Ozbay, Ph.D., University Principal Investigator, Rutgers University; phone 732/445-2792; fax 732/445-0577; email kaan@rci.rutgers.edu.
25. NEW JERSEY: Variable Tolls on Port Authority Interstate Vehicle Crossings - José Holquin-Veras, Ph.D., P.E., Associate Professor, Rensselaer Polytechnic Institute; 110 8th Street Building JEC 4030, Troy NY 12180-3590; e-mail:

jhv@rpi.edu or Mark F. Muriello, Assistant Director, Tunnels Bridges and Terminals Department, The Port Authority of New York and New Jersey, One Madison Avenue – 5th Floor, New York, NY 10010, e-mail: mmuriello@panynj.gov

26. NEW JERSEY: Express Bus/HOT Lane Study for the Lincoln Tunnel - Mark Muriello, PANYNJ, Assistant Director (212) 435-4836 telephone, mmuriello@panynj.gov.
27. OHIO: Northern Ohio Freight Efficiency Study - Howard Wood, Ohio Department of Transportation, (614) 466-2255, howard.wood@dot.state.oh.us.
28. PENNSYLVANIA: Variable Tolls on the Pennsylvania Turnpike - Robert J. Smith, Director of Finance, PA Turnpike; phone (717) 939-9551 x2432, rsmith@paturnpike.com, or George L. Hannon, Special Assistant, PA Turnpike, (717) 939-9551 x5124, ghannon@paturnpike.com
29. CALIFORNIA: Car Sharing in the City of San Francisco - Larry Magid, Executive Director; phone 415.995.8588 x305, email larry@citycarshare.org; www.citycarshare.org
30. GEORGIA: Simulation of Mileage-Based Insurance in Atlanta - Randall Guensler, Georgia Institute of Technology; Phone 404-894-0405, randall.guensler@ce.gatech.edu.
31. MINNESOTA: Variabilization of Fixed Auto Costs - Kenneth R. Buckeye, Mn/DOT, ph: 651.296.1606, Fax: 651.215.0443, E-mail: kenneth.buckeye@dot.state.mn.us
32. OREGON: Mileage-Based Road User Fee Evaluation - Mr. James M. Whitty, Project Administrator; 503-986-4284 (office), 503-881-7552 (cell), jim.whitty@odot.state.us
33. WASHINGTON: Global Positioning System (GPS) Based Pricing in the Puget Sound Region - Matthew Kitchen, Puget Sound Regional Council; 1011 Western Avenue, Suite 500, Seattle, WA 98104-1035; 206.464.6196; mkitchen@psrc.org
34. WASHINGTON: Parking Cash-Out and Pricing in King County - Kathy Koss, King County Metro; 206.684.1649, fax: 206.684.2058, Kathy.Koss@metrokc.gov; 400 Yesler Way, M.S. YES-TR-0600, Seattle, WA 98104.
35. WASHINGTON: Cash-Out of Cars in King County - Ms. Jemae Hoffman, Mobility Manager for the Policy, Planning, and Major Projects Division of Seattle Department of Transportation; Phone: 206/684-8674; Fax: 206/684-5180; Email: jemae.hoffman@seattle.gov
36. FLORIDA: Sharing of Technology on Pricing - Claire Felbinger, Transportation Research Board; Phone 202/334-3177, cfelbinger@nas.edu.
37. MARYLAND: Feasibility of Value Pricing - Mr. Terrance Hancock at the Maryland State Highway Administration. Phone: 410-545-5675, 1-888-204-4828; Fax: 410 209 5025; or E-mail: thancock1@sha.state.md.us.
38. MINNESOTA: Project Development Outreach and Education - Lee Munnich, Sr. Fellow and Director, State and Local Policy. Phone 612 625-7357; Fax 612 626-9833; E-mail Lmunnich@hhh.umn.edu

39. TEXAS: HOT Lanes Region-wide Study in Dallas - Wes Beckham, North Central Texas Council of Governments; Phone 817/695-9252, wbeckham@dfwinfo.com

Environmental Justice Issues

Query: How are others addressing the issues of Environmental Justice when justifying/supporting/documenting improvements that provide for or consider managed or HOT lanes as alternatives in the project development process? Do you have any specific references or examples as to how others have addressed this matter in the environmental documentation process?

Response: Here are a few examples in Priced Projects I've found that we are working with. Most of our reports can be found at

http://knowledge.fhwa.dot.gov/cops/hcx.nsf/home?openform&Group=Value%20Pricing&tab=REFERENCEBYALPHA. I think this may have some specific examples. I think the first four are the best "examples".

**Santa Cruz Studies http://www.sccrtc.org/highway.html#hot See especially Appendix A-G of final report - Section 3.2 (traveler characteristics), PDF page 52 (document page 37) and Appendix E, PDF Page 96-97 (document page 2-3) talks about Socio-economic issues for evaluation of HOT projects. This document is particularly relevant. This has a very good "purpose and need" statement (in my opinion). The report was prepared by Wilbur Smith who does a substantial amount of the HOV to HOT and Toll facility type consulting work.

**Metro in Portland, OR has done quite a bit of policy work around pricing. As part of their Regional Transportation Plan policy they have to examine pricing as an alternative when consider any new lane miles. They also have examined equity issues fairly extensively (the "Final Report" includes 32 references to equity). See http://www.metro-region.org/article.cfm?articleid=230 for their traffic relief options page (and the related reports are on the left side of the screen w/the Final Report at the top - but the white papers are also very good). The current pricing project is US 217 at http://knowledge.fhwa.dot.gov/cops/hcx.nsf/384aefcefc48229e85256a71004b24e0/9ffe2840925c018a85256dbb0076bdbe?OpenDocument.

*San Diego, CA - Virtually all of the I-15 reports can be found at http://argo.sandag.org/fastrak/library.html. They have planning and operations reports and included information on travelers by socio-economic data. This was prior to EJ - but again, developed in the ISTEA era. The area is higher income, but they do support transit operations with revenue.

*Houston, TX did an equity analysis of users available at http://knowledge.fhwa.dot.gov/cops/hcx.nsf/All+Documents/3CA94786BF8FB10485256DC5006A3611/$FILE/Equity%20Analysis%20of%20QuickRide%20in%20TRB%20format.pdf

Denver, CO HOT Lane Proposal
http://knowledge.fhwa.dot.gov/cops/hcx.nsf/All+Documents/000ED394C695FE9C85256DC5006A85AD/$FILE/I-25_Proposal_final.pdf , See specifically section 3.0. (very brief, but has some language example at least and sometimes brevity is good - I didn't use it here!).

Miami, FL Proposal
http://knowledge.fhwa.dot.gov/cops/hcx.nsf/All+Documents/3BE745A87D6B55BF85256D9B00694879/$FILE/Phase%20II%20Scope%20of%20Work.doc , includes "how" they will conduct such a study in order to produce said documentation.

Minnesota web site http://www.dot.state.mn.us/information/mnpass/ and their outreach proposals and monitoring & evaluation plans are available at http://knowledge.fhwa.dot.gov/cops/hcx.nsf/384aefcefc48229e85256a71004b24e0/7b8a9b46944c50de85256de4005845b1?OpenDocument

And a response from the VP Team -"Typically, our successful projects and studies conduct extensive public involvement/education campaigns to ensure that all communities are aware of the benefits of HOT Lane projects. HOT lanes are a choice. At this time, our operating HOT lane projects offer many ridesharing advantages. On I-15 there is an express bus service and carpools are free. On SR-91 car pools are free (with the exception of pm peak direction). I am not sure if transit operates on the facility. In Texas, Metro buses use the facility free of charge. The Colorado I-25 project is seeking a categorical exclusion. I think the Katy Expansion project re-opened their public comment period on a pending environmental process. Keep in mind that often if an HOV lane is being converted to HOT and no additional ROW or construction issues exist most DOTs do not elect to go through a full EA. There is not an EJ issue on any of our operating projects because parallel routes are available in each corridor. Using a HOT lane facility is a choice (kind of like first class versus coach). Anyone can elect premium service. For a poor mom trying to get to daycare on time, HOT Lanes are worth the cost."

Resources on Community of Practice web site

This CoP is dedicated to the open exchange of information and knowledge about a variety of issues that are important to the Transportation Community. Participation is open to everyone. We are dedicated to the exchange of knowledge and information throughout the Transportation Community to promote better decision-making, spark innovation, speed technology transfer, and better meet the needs of our customers and partners. This site will be updated continuously, so it is important to visit often.
http://knowledge.fhwa.dot.gov/cops/hcx.nsf/home

Other web site resources

1. Federal Highway Administration- Office of Transportation Policy Studies
   http://www.fhwa.dot.gov/policy/otps/publications.htm#anchor241332

2. Value Pricing Homepage- www.valuepricing.org
3. Managed Lanes on the Web – http://managed-lanes.tamu.edu